

Shingleton Forest Management Unit Compartment Review Presentation Compartment #104 Entry Year: 2012

Compartment Acreage: 2533 County: Alger

Revision Date: September 17, 2010

Stand Examiner: Kristen Matson

Legal Description: T49N R13W secs. 22, 23, 26-28, 33-36, T48N R13W sec 1 and 2

Identified Planning Goals ('Management Area' or 'RMU', if applicable):

This compartment is at the west edge of the Deer Park Management Area.

Management Goals: To manage the compartment in accordance with the principles of sustainable forest management for multiple resource values.

Soil and Topography: The large opening complex portion of the compartment is on Kalkaska Sand, 0-6% slopes, severely burned. The hardwoods and upland conifers are on Garlic Sand, 0-35% slopes and Paquin Sand 0-3% slopes. There are some Tawas-Deford Mucks near drainages. The Sucker River has steep sandy bluffs along it.

Ownership Patterns, Development, and Land Use in and Around the Compartment: Much of the surrounding forest land to the west and south is owned by Heartwood Forestland Fund, with a few private parcels. Burt Township owns some adjacent land to the north. There is a large ongoing land exchange in process involving the Burt Township Airport.

Unique, Natural Features: Wood Turtle (*Clemmys insculpta*, state special concern) could occur in and along Sucker River. There is also potential for nesting red-shouldered hawk (*Buteo lineatus*, state threatened) and Northern goshawks (*Accipiter gentilis*, state special concern) to occur throughout this compartment in stands of northern hardwoods, mixed swamp conifer, mature aspen and swamp hardwood.

Archeological, Historical, and Cultural Features:

Turn of the century logging was conducted in this area; Whitewash Camp was active then.

Special Management Designations or Considerations: None at this time.

Watershed and Fisheries Considerations: Fisheries Values Excellent. The Sucker River main branch is classified as a Type 4 trout stream, meaning that it is open all year and specifically for steelhead and salmon from October 1 through the last Saturday in April. Although it supports native brook trout, the fishery it is known for is the Spring steelhead run. Inspection during 2002 showed that the river is healing itself from a heavy sand bedload. Raw eroding banks were becoming vegetated, sand was being scoured out of deeper holes, and more gravel habitat was being exposed, all through natural processes. In addition, the Alger County Conservation District worked with Fisheries personnel in the mid 2000s to protect some raw banks and to build two stairways down to the river to minimize further erosion. Due to the highly erodible sand/gravel substrate in the area, environmental parameters for any logging project should emphasize protecting the river and its tributaries from further sand erosion damage.

Wildlife Habitat Considerations: This compartment lies in the Grand Marias Sandy End Moraine and

Outwash ecological sub-subsection. It is characterized by a growing season of between 100 and 140 days, winter temperatures as low as -40° F, and average snowfall of 180 inches. General Land Office notes show the presettlement vegetation within this compartment was dominated by an upland mix of northern hardwoods and conifers. Species mentioned included sugar maple, red maple, hemlock, beech, yellow birch, white birch, balsam fir, and white pine. Looking at the soils and landcover, it appears as though logging and hot wildfires substantially altered the soil composition. Today, the majority of the soil within the compartment is fairly raw sand. Although there are some stands in the southern portion of the compartment that continue to exhibit a species mix similar to presettlement vegetation, the current landcover is more early successional in nature. Upland openings dominate. Major timber types include aspen, planted jack pine, and northern hardwoods. The Grand Marias airport is located in the northwest corner of this compartment. The Sucker River forms the eastern boundary of the compartment. Due primarily to the current land use (airport) and the soil conditions, the central portion of this compartment will be managed for species associated with upland openings. Northern hardwoods within the compartment will be managed in a manner that should result in an increase in hemlock, white pine, and yellow birch. Timber marking prescriptions should actively maintain large diameter trees to promote structural diversity. There are no known occurrences of rare or endangered species within this compartment. Wildlife species of interest known to utilize this compartment include moose, marten, gray wolves, and sandhill cranes. There is also the potential for sharp-tailed grouse activity in this area.

Mineral Resource and Development Concerns and/or Restrictions:

Surface sediments consist of lacustrine (lake) sand and gravel. There is insufficient data to determine the glacial drift thickness. The Cambrian Munising and Trempealeau Formations subcrop below the glacial drift. The Trempealeau could be used for stone. The nearest gravel pit is at the southeast end of the Grand Marais Airport runway. There appears to be gravel potential on State lands.

Vehicle Access: County Road 703 (Old Seney Road) provided access along the west edge of the compartment. The compartment has a number of poor dirt roads providing access to the whole area.

Survey Needs: None needed at this time.

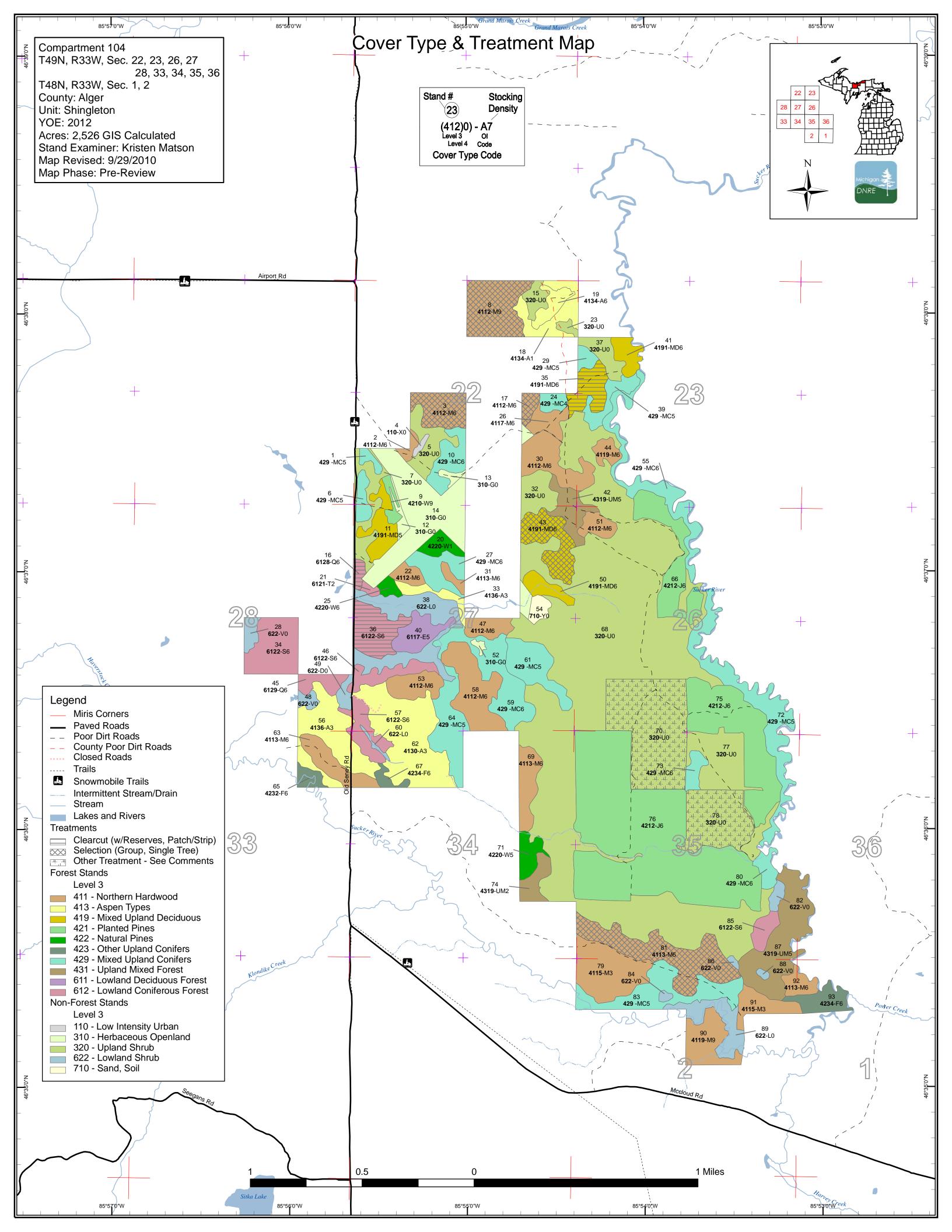
Recreational Facilities and Opportunities: The snowmobile trail on the Old Seney Road is the only developed recreational facility in the compartment. There are several sites along the Sucker River where dispersed camping occurs, usually in conjunction with fishing. Steps were built in two locations to provide fishing access down the steep sandy banks to the River. The two-track roads are often used by ORV's. Some hunting of bear, grouse, and deer occurs here.

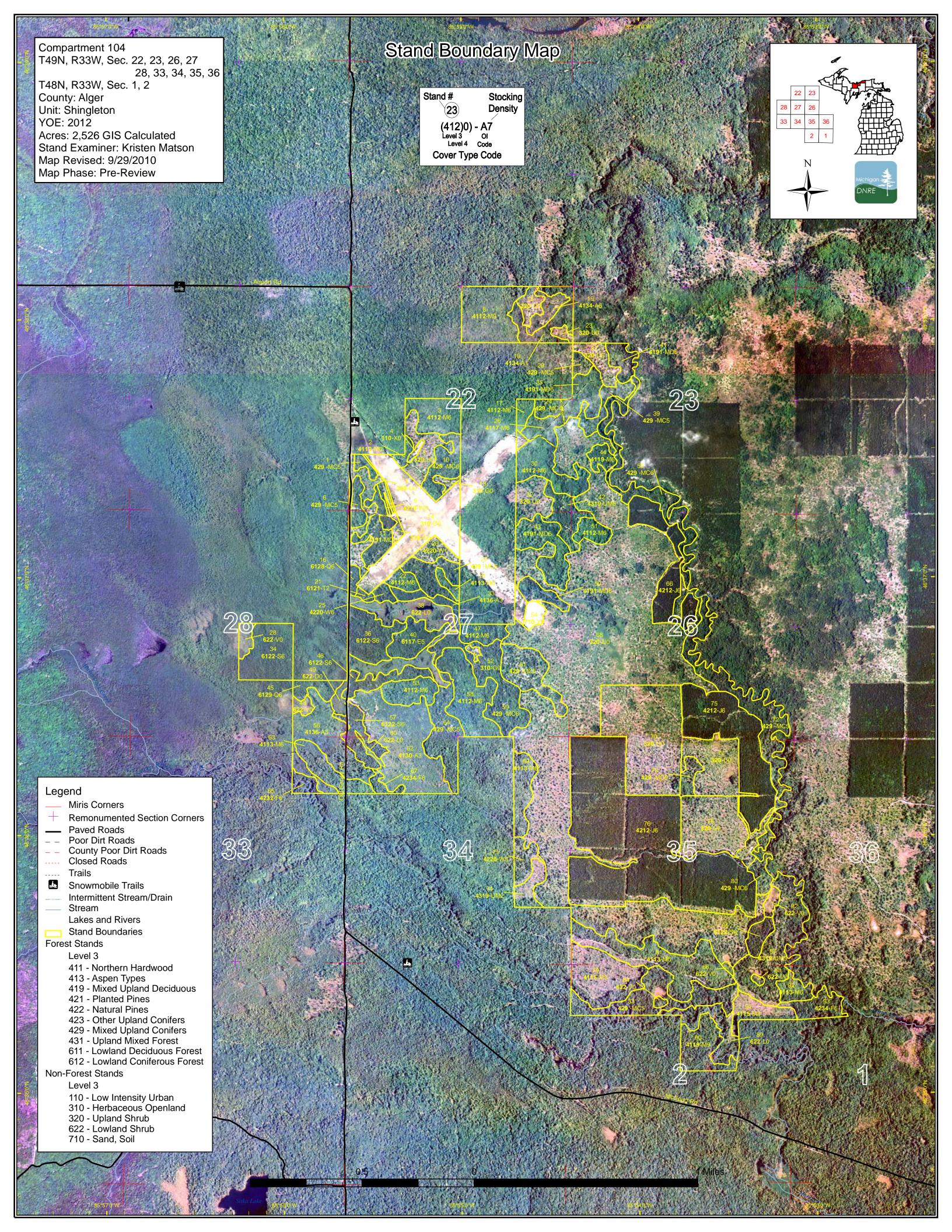
Fire Protection: Existing roads provide adequate access for fire equipment.

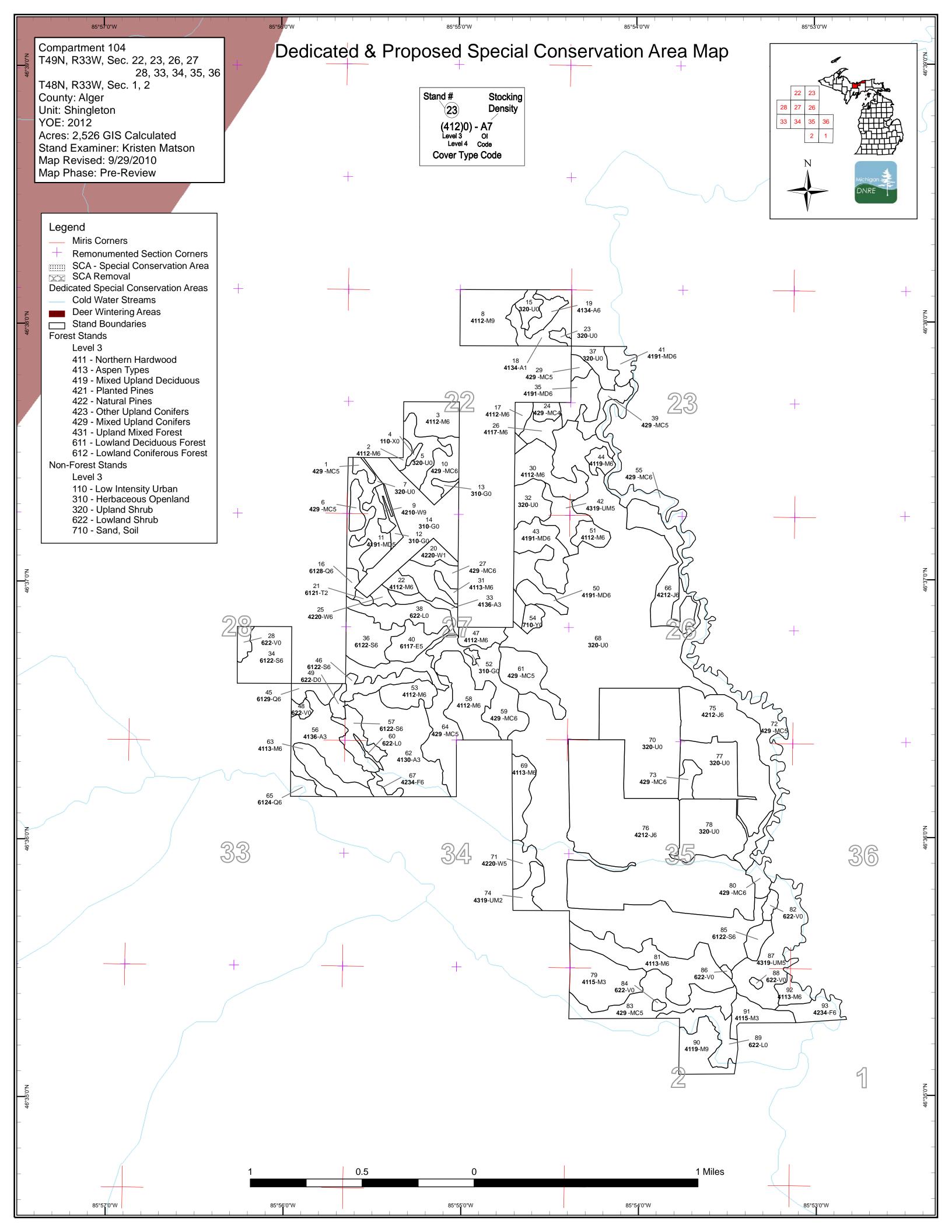
Additional Compartment Information:

- **➤** The following reports from the Inventory are attached:
 - **♦** Total Acres by Cover Type and Age Class
 - **♦** Proposed Treatment Summary
 - **♦** Proposed Treatments No Limiting Factors
 - **♦** Proposed Treatments With Limiting Factors
 - **♦ Stand Details (Forested and Nonforested)**
 - **♦ Dedicated and Proposed Special Conservation Areas**
- > The following information is displayed, where pertinent, on the attached compartment maps:
 - ♦ Base feature information, stand boundaries, cover types, and numbers
 - **♦** Proposed treatments

♦	♦ Details on the road access system	







Data updated before 2:00 PM

Compartment 104 Year of Entry 2012



Age Class

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	Hoc	A SE	, S. /	01.00 / S	St.		D. C.	\$ /	8 /	, R. /	\$ 6	8.5	00.00	70,70	Vo X	R. A.
Aspen	0	0	118	10	8	0	0	0	0	0	0	0	0	0	20	157
Bog	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17
Herbaceous Openland	85	0	0	0	0	0	0	0	0	0	0	0	0	0	0	85
Jack Pine	0	0	0	0	356	0	0	0	0	0	0	0	0	0	0	356
Lowland Conifers	0	0	0	0	0	0	0	0	9	0	0	0	0	0	4	13
Lowland Deciduous	0	0	0	0	17	0	0	0	0	0	0	0	0	0	0	17
Lowland Shrub	66	0	0	0	0	0	0	0	0	0	0	0	0	0	0	66
Lowland Spruce/Fir	0	0	0	0	0	0	0	0	101	0	0	0	0	0	0	101
Mixed Upland Deciduous	0	0	0	0	0	0	18	37	0	0	0	0	0	0	28	83
Northern Hardwood	0	53	0	0	0	11	50	25	234	0	0	0	0	0	9	382
Sand, Soil	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
Tamarack	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
Treed Bog	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Upland Conifers	0	0	0	0	0	0	8	0	0	0	0	0	0	0	298	306
Upland Mixed Forest	0	11	0	0	0	0	0	0	0	0	0	0	0	0	73	84
Upland Shrub	794	0	0	0	0	0	0	0	0	0	0	0	0	0	0	794
Upland Spruce/Fir	0	0	0	0	0	4	13	6	0	0	0	0	0	0	0	24
Urban	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
White Pine	0	0	0	0	0	0	5	0	4	0	0	0	0	0	19	28
Total	975	64	120	10	381	15	93	68	349	0	0	0	0	0	451	2526



Table 2 – Proposed Treatment Summaries

Data updated before 2:00 PM

Shingleton Mgt. Unit Year of Entry 2012

Compartment 104
Total Compartment Acres: 2526

Acres by Treatment Type

Commercial Harvest - 199 Site Prep - 0 Tree Planting - 0 Prescribed Burn - 0 Other - 0

Habitat Cut - 0 Opening Maintenance - 14 Tree Seeding - 0 Pesticide - 0

Cover Type by Harvest Method

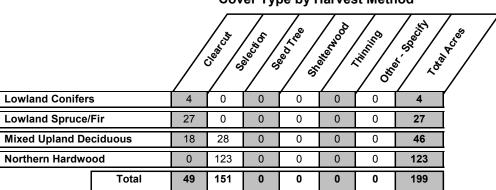


Table 3 -- Treatments Prescribed

Compartment: 104

		Sning	gleton Mgt. Unit			atments Pre		Compartment: 104	4
S t	Dat	a upda	ted before 2:00 PN	w	ith No L	imiting Fac	ctor	Year of Entry 2012	DNRE
а	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
3 41	1104003-Cut	21.7	4112 - Maple, Beech, Cherry Association	High Density Pol	e 70	Harvest	Single Tree Selection	Maple, Beech, Cherry Association	Cmpt. Review Proposal
Prescrip Specs:			apx. 80 BA. maintainin rcanopy white pine.	g species and si	ze diversit	y. Though BBI	D is present, there are ver	ry few beech. Retentio	n: leave all
Other Comme	, ,	lines are	e in on west and north.						
Next Steps:	Follow-u on site.	p treatmo	ent with a regeneration	survey as per the	e work ins	tructions. Acce	eptable regeneration spec	ies include a mix of sp	ecies currently
8 41	1104008-Cut	39.8	4112 - Maple, Beech, Cherry Association	High Density Log	j 70	Harvest	Single Tree Selection	Maple, Beech, Cherry Association	Cmpt. Review Proposal
Prescrip Specs:			. 80 BA maintaining specanopy white pine.	ecies and size div	ersity. B	BD is in the are	a, though there are few B	eech in the stand. Ref	ain some
Other Comme		nes are i	in. There is a road into	the stand across	s private fi	rom the west.			
Next Steps:	Follow-u site.	p treatmo	ent with a regeneration	survey as per the	e work ins	tructions. Acce	eptable regeneration inclu	des a mix of all species	s currently on
16 41	1104016-Cut	4.0	6128 - Lowland Coniferous, Mixed Deciduous	High Density Pol	e 70	Harvest	Clearcut	Aspen, Mixed Conifer	Cmpt. Review Proposal
Prescrip Specs:	tion Clearcut	all trees	. To maximize the asp	en regeneration,	do not lea	ive retention.			
Other Comme		d Seney	Rd/snowmobile trail.	Summer cut if po	ssible.				
Next Steps:	Follow-u site.	p treatmo	ent with a regeneration	survey as per the	e work ins	tructions. Acce	eptable regeneration inclu	des a mix of all species	s currently on
17 41	1104017-Cut	5.4	4112 - Maple, Beech, Cherry Association	High Density Pol	e 70	Harvest	Single Tree Selection	Maple, Beech, Cherry Association	Cmpt. Review Proposal
Prescrip Specs:	tion Mark to white pir		BA maintaining species	and size diversit	y. Very fe	ew beech, but th	ney have BBD. Retention	: leave all beech and s	super canopy
Other Comme		o west re	ecently cut.						
Next Steps:	Follow-u currently		ent with a regeneration	survey as per the	e work ins	tructions. Acce	eptable regeneration spec	ies include a mix of all	species
35 41	I104035-Cut	17.7	4191 - Mixed Upland Deciduous with Conifer	High Density Pol	e 55	Harvest	Clearcut with Reserves	Aspen, Mixed Deciduous	Cmpt. Review Proposal
Prescrip Specs:	tion_ Clearcut	all trees	leaving minimal retenti	on to improve sp	routing. S	Suggested reter	ntion trees include paper l	birch, and large white p	ine.
Other Comme	nts:								

Follow-up treatment with a regeneration survey as per the work instructions. Consider planting oak if survey reflects areas without sufficient regeneration. Acceptable regeneration species include a mix of aspen with all other species currently on site.

<u>Next</u> Steps:

Compartment: 104 Shingleton Mgt. Unit Table 3 -- Treatments Prescribed with No Limiting Factor Year of Entry 2012 s Data updated before 2:00 PM t а **Treatment** Acres Stage1 Size Stand **Treatment Treatment** Cover Type **Approval** n Density Method Name Objective Status CoverType Type d Age 36 41104036-Cut 27.0 6122 - Black Spruce High Density Pole 76 Harvest Clearcut with Black Spruce Cmpt. Review Reserves Proposal Prescription Clearcut all trees, reserving some paper birch and large white pine. Specs: **Other** Along Old Seney Rd/snowmobile trail. Summer cut if possible. Comments: <u>Next</u> Follow-up treatment with a regeneration survey as per the work instructions. Acceptable regeneration species include any mix of species Steps: currently on site. 43 41104043-Cut 27.8 4191 - Mixed High Density Pole 65 Harvest **Group Selection** Mixed Upland Cmpt. Review Proposal **Upland Deciduous** Deciduous with with Conifer Conifer Prescription Cut all aspen, balsam fir, white spruce, and poor quality white pine. Thin remaining trees to apx. 80 BA where applicable. Specs: **Other** Comments: **Next** Plant oak in openings created by logging. Follow-up treatment with a regeneration survey as per the work instructions. Acceptable regeneration is a mix of species currently on site. Steps: 81 41104081-Cut 55.9 4113 - R.Maple, High Density Pole 70 **Group Selection** R.Maple, Conifer Cmpt. Review Harvest Conifer Proposal Prescription Create large canopy gaps in areas that are already sparse, or that contain poor quality trees. Mark higher quality areas to apx 80 BA. Retain some supercanopy white pine and spruce. Specs: Some slopes may be too steep to cut. <u>Other</u> Comments: Plant oak in openings created by logging. Follow-up treatment with a regeneration survey as per the work instructions. Acceptable regeneration **Next** Steps: includes a mix of species currently on site. 70 NF_41104070- 94.5 Non-Forested 0 Non-Forest Other - Specify Planted Jack Pine Cmpt. Review Regen Management Proposal

Concern

Prescription Regen check in 2011 will determine if re-planting is necessary. Also will determine if herbicide and/or pesticide is needed. Specs:

Other

Comments:

Next Steps:

78 NF 41104078- 46.3 Regen

concern

Non-Forested

0 Non-Forest Management Other - Specify

Planted Jack Pine

Cmpt. Review Proposal

Prescription Regen check in 2011 will determine if re-planting is necessary. Also will determine if herbicide and/or pesticide is needed. Specs:

Other_

Comments:

<u>Next</u> Steps:

Total Treatment

Acreage Proposed:

340.1

Shingleton Mgt. Unit Table 4 -- Treatments Prescribed with Compartment: 104 a Limiting Factor s Year of Entry 2012 Data updated before 2:00 PM t **Treatment Treatment Treatment Cover Type** n Acres Stage1 Size Stand **Approval** Name CoverType Density Method Objective Status Age Type #Error **Prescription** Specs: <u>Other</u> Comment: <u>Next</u> Steps:

Total Treatment Acreage Proposed:

<u>Limiting Factor and No</u> <u>Treatment Reason</u>

0

Data updated before 2:00 PM

Out of YOE -- Treatments **Prescribed with No Limiting Factor**

Year of Entry: 2012

Natural Red Pine

Cmpt. Review

Treatment	Acres	Stage1	Size	Stand	Treatment	Treatment	Cover Type	Approval
Name		CoverType	Density	Age	Type	Method	Objective	Status
41039_OutOfY OE-Cut	14.6				Harvest	Clearcut with Reserves	Natural Pine, Mixed Deciduous	Cmpt. Review Proposal

Prescription Cut all trees except hemlock and oak. Leave a few red pine and white pine for seed.

Specs:

Other Access to this stand will involve the installation of a temporary bridge. This could be built and placed by the logger west of this stand. Winter havest may be needed. Survey work may be needed. There is a creek / drainage located in southern part of stand, it runs east/west. Buffer 50 Comments: feet. Buffer Smith creek 100 feet. These will be the retention areas. East edge of stand has some cedar. Cedar can be cut, but sale boundary

should exclude the very dense patches.

Plant red pine on ridges to maintain component. Low ground should regenerate to mixed species. Acceptable management objectives includes Next

any species mixture currently found onsite. Steps:

41049_OutOfY 15.3 OF-Cut

Proposal

Harvest

Single Tree Selection

Prescription Cut all species except red pine ,oak, white pine, and hemlock. Red pine and white pine should be marked. Create regeneration holes where available and thin thicker areas of poles. Specs:

See MNFI comments. Winter harvest will be needed due to road conditions into treatment area. Buffer on Walsh Ditch should be placed at the Other Comments: bottom of spoils. Protect existing red pine and white pine regeneration.

Natural regeneration of red pine, jack pine, and white pine is acceptable. Plant red pine if regeneration fails. Next

Steps:

41088 OutOfY Harvest Shelterwood Natural Red Pine Cmpt. Review **OE-Cut** Proposal

Prescription Mark red pine and white pine to 50 sq. ft. basal area to thicken crowns and prepare for regeneration harvest next year of entry. Cut all other

species except hemlock and oak. Specs:

Other_ Set up treatment as soon as it is approved at compartment review in order to combine it into one timbersale with Compartment 88, stand 43. No

Comments: additional retention small stand

Evaluate stand next year of entry for possible regeneration havest. Try to maintain management objective of natural red pine. Next

Steps:

41118 OutOfY 8.6 Harvest Crown Thinning Natural Red Pine Cmpt. Review OE_1-Cut Proposal

Prescription Cut all Jack Pine and mark Red and White Pine to 90 BA

Specs:

Other_ Cut with stand 34 comp 117

Comments:

Next

Steps:

41179_OutOfY Harvest Single Tree Selection Sugar Maple Cmpt. Review **OE-Cut** Association Proposal

Prescription Cut to 80 SF using selection system. Release crop trees using the complete marker as a guide, mark for best tree in place. This stand has some

species variation across it, thin to improve diversity favor retention of mesic confers. In areas of beech use beach bark marking guidelines. Place Specs: gaps in areas of less shade tolerant species. Cut aspen clones for aspen regeneration. Leave some single aspen trees where possible for soft

Other Acceptable regeneration is a mix of hardwood species including Sugar maple, Red maple, Basswood, Black Cherry, Yellow Birch, Aspen, White Comments: Birch, Hemlock and White Pine

Next Steps:

> **Total Treatment** Acreage Proposed:

45.1

s t	Shingletor	n Mgt. Unit		5 – Fo i Data update	rested Sta	Not the second s
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	429 - Mixed Upland Conifers	Medium Density Pole	3.5	Uneven Age	51-80	
2	4112 - Maple, Beech, Cherry Association	High Density Pole	3.6	70	81-110	Firewood cut out of south & west part in 1998. Private line to west is in.
3	4112 - Maple, Beech, Cherry Association	High Density Pole	21.7	70	111-140	Property lines are in on west and north.
6	429 - Mixed Upland Conifers	Medium Density Pole	7.4	Uneven Age	51-80	South end has more hardwood, less white pine.
8	4112 - Maple, Beech, Cherry Association	High Density Log	39.8	70	111-140	Prescribed last entry, lines put in, never marked or sold.
9	42100 - Planted White Pine	High Density Log	4.9	50	81-110	Mix of planted & natural WP near airport.
10	429 - Mixed Upland Conifers	High Density Pole	17.6	Uneven Age	81-110	Mix of fir, spruce, w.pine, r.maple & cherry. Many non- merchantable trees. South of road stand has more hardwood. Firewood removed south of road in 1998.
11	4191 - Mixed Upland Deciduous with Conifer	Medium Density Pole	17.3	Uneven Age	51-80	Old open area, slowly filling in with trees, resulting in a variety of ages and species. BA range 50-80.
16	6128 - Lowland Coniferous, Mixed Deciduous	High Density Pole	4.0	Uneven Age	81-110	Next to Old Seney Rd.
17	4112 - Maple, Beech, Cherry Association	High Density Pole	5.4	70	81-110	Not many Beech, but they have BBD. Adjacent private to west & north recently harvested.
18	4134 - Aspen, Spruce/Fir	Low Density Sapling	9.6	20	1-50	Old opening filling in with trees.
19	4134 - Aspen, Spruce/Fir	High Density Pole	20.2	Uneven Age	51-80	Mix of aspen clones & conifers of varying ages and sizes.
20	42200 - Natural White Pine	Low Density Sapling	8.7	Uneven Age	1-50	Adjacent to airport. Old opening, filling in with trees over time.
21	6121 - Tamarack	Medium Density	2.1	15		
22	4112 - Maple, Beech, Cherry Association	High Density Pole	6.8	70	81-110	
24	429 - Mixed Upland Conifers	Low Density Pole	6.1	Uneven Age	1-50	Old opening filling in with trees, resulting in a varitey of sizes and ages.

42200 - Natural White

Pine

25

High Density Pole

4.1

70

51-80

Scattered large white pine, with a mix of other species.

s t	Shingletor	n Mgt. Unit		5 – For Data update	rested Sta	Comparational 101
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
26	4117 - Mixed N. Hardwood - Pine	High Density Pole	10.7	40	1-50	Many of the trees are non-merchantable.
27	429 - Mixed Upland Conifers	High Density Pole	18.3	Uneven Age	51-80	Areas with large diameter White Pine; mix of tree sizes and species throughout.
29	429 - Mixed Upland Conifers	Medium Density Pole	4.7	Uneven Age	1-50	Mix of trees filling in old opening, resulting in a variety of ages and sizes.
30	4112 - Maple, Beech, Cherry Association	High Density Pole	28.0	70	51-80	Thinned last entry. Some areas of aspen regen.
31	4113 - R.Maple, Conifer	High Density Pole	3.8	70	81-110	Poor quality hardwood with scattered large white pine. Areas of dense b.fir regen.
33	4136 - Aspen, Mixed Conifer	High Density Sapling	8.4	38		
34	6122 - Black Spruce	High Density Pole	33.7	70	51-80	Lower ground with more spruce and brush. Higher ground with more ferns and hardwood mix. Scattered large diameter white pine. Low site index.
35	4191 - Mixed Upland Deciduous with Conifer	High Density Pole	17.7	55	51-80	Clearcut with reserves. Species composition and density is variable.
36	6122 - Black Spruce	High Density Pole	27.0	76	81-110	BA range 60-130. CC w reserves this entry. Low, wet areas w/in stand.
39	429 - Mixed Upland Conifers	Medium Density Pole	12.2	Uneven Age	1-50	Old opening - filling in with trees of varying sizes and ages.
40	6117 - Lowland Deciduous, Mixed Coniferous	Medium Density Pole	17.1	38	51-80	Low, wet areas with tag alder throughout. Paquin Sand 0-3% slopes.
41	4191 - Mixed Upland Deciduous with Conifer	High Density Pole	10.4	Uneven Age	51-80	
42	4319 - Mixed Upland Forest	Medium Density Pole	17.4	Uneven Age	51-80	Filling in with trees - various sizes and ages.
43	4191 - Mixed Upland Deciduous with Conifer	High Density Pole	27.8	65	81-110	Species composition and density is variable. Harvest this entry.
44	4119 - Mixed Northern Hardwoods	High Density Pole	6.9	65	51-80	
45	6129 - Mixed Coniferous Lowland Forest	High Density Pole	9.2	70	51-80	Low, wet ground.

14.6

High Density Pole

78

51-80

6122 - Black Spruce

46

Low, wet areas within stand. Next to Old Seney Rd.

s t	Shingletor	n Mgt. Unit		5 – For Data update	ested Sta	Mesona
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
47	4112 - Maple, Beech, Cherry Association	High Density Pole	10.9	53	81-110	
50	4191 - Mixed Upland Deciduous with Conifer	High Density Pole	9.6	60	51-80	Mix of species. Portion of stand is somewhat lower - seasonal drainage.
51	4112 - Maple, Beech, Cherry Association	High Density Pole	9.1	70	51-80	Thinned last entry.
53	4112 - Maple, Beech, Cherry Association	High Density Pole	16.3	70	81-110	Thinned in 1997.
55	429 - Mixed Upland Conifers	High Density Pole	31.1	Uneven Age	51-80	Steep hill along the Sucker River. Contains a few dispersed campsites.
56	4136 - Aspen, Mixed Conifer	High Density Sapling	44.8	14		Hilly terrain. Scattered large diameter white pine residuals, especially in SE near county road. Wet drainage in stand.
57	6122 - Black Spruce	High Density Pole	17.5	75	81-110	Along the Old Seney Road. Low, wet areas within stand. Tawas- Deford mucks.
 58	4112 - Maple, Beech, Cherry Association	High Density Pole	38.8	53	81-110	Garlic Sand, 0-6% slopes.
59	429 - Mixed Upland Conifers	High Density Pole	40.3	Uneven Age	81-110	
61	429 - Mixed Upland Conifers	Medium Density Pole	26.7	Uneven Age	1-50	Trees of varying sizes and ages in an old opening. Kalkaska Sand, 0-6% slopes, severely burned.
62	4130 - Aspen	High Density Sapling	73.5	14		
63	4113 - R.Maple, Conifer	High Density Pole	19.1	70	81-110	Thinned in 1997. Hilly terrain. BBD is present, though there are few beech trees. BA variable 60-130.
64	429 - Mixed Upland Conifers	Medium Density Pole	30.4	Uneven Age	51-80	
65	42320 - Upland Spruce	High Density Pole	6.1	60	81-110	Sucker River riparian zone. Hilly. South of river has more hardwood and less conifer.
66	42120 - Planted Jack Pine	High Density Pole	38.9	38	111-140	Adjacent to Sucker River. Dispersed camp sites near river. Kalkaska Sand 0-6% slopes, severely burned.
67	42340 - Upland Spruce/Fir	High Density Pole	4.4	49	81-110	Variable species density & BA. Many trees 2-4" DBH.

69

4113 - R.Maple, Conifer High Density Pole

17.9

65

81-110

Garlic Sands, 0-6% slopes.

5 – Forested StandsData updated before 2:00 PM

Compartment: 104
Year of Entry: 2012



Data updated before 2:00 PM	2:00 PM Teal of Entry, 2012				
Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
42200 - Natural White Pine	Medium Density Pole	10.7	Uneven Age	1-50	Trees of varying sizes & ages in an old opening.
429 - Mixed Upland Conifers	Medium Density Pole	50.5	Uneven Age	51-80	Steep hill along the Sucker River, and flat at bottom. Dispersed campsites. Variable size and density of trees.
429 - Mixed Upland Conifers	High Density Pole	7.2	Uneven Age	51-80	Area of trees within large opening. Higher BA in center, sparse at edges. Mix of conifers and hardwood. Kalkaska sand, 0-6% slopes, severely burned.
4319 - Mixed Upland Forest	Medium Density	11.0	6		Clearcut 1994. Regenerating to a mix of conifer and hardwood. Kalkaska sand, 6-15% slopes, severely burned.
42120 - Planted Jack Pine	High Density Pole	74.1	38	81-110	JP plantation adjacent to Sucker River. Kalkaska Sand 0-6% slopes, severely burned.
42120 - Planted Jack Pine	High Density Pole	242.6	38	81-110	Jack Pine plantation. Seasonal drainage through stand with red pine along it. Some issues with ORV in past - appears mainly eliminated due to blocking of the trails. Kalkaska sand, 0-15% slopes, severely burned.
4115 - Y.Birch, Hemlock NH	High Density Sapling	42.1	6		Harvested in 2004. Residual trees include hemlock, and a few supercanopy white pine.
429 - Mixed Upland Conifers	High Density Pole	7.5	55	51-80	
4113 - R.Maple, Conifer	High Density Pole	55.9	70	81-110	BA range from 50-160. South facing slope near road with less trees. Wide range of tree species, with more conifers around the edges. Garlic Sand 15-50% slopes.
429 - Mixed Upland Conifers	Medium Density Pole	42.2	Uneven Age	51-80	Sucker River runs through a portion of the stand. Dispersed campsite along river.
6122 - Black Spruce	High Density Pole	8.6	78	111-140	Wet areas within stand. Many trees less than 6" DBH. Carbondale, Lupton, and Tawas soils.
4319 - Mixed Upland Forest	Medium Density Pole	55.4	Uneven Age	51-80	Species composition and density is variable.
4119 - Mixed Northern Hardwoods	High Density Log	24.8	70	81-110	Select harvested in 1989. Seasonal drainages flowing into the Sucker River within the stand. Areas with large diameter hemlock and cedar (especially in the west). Cedar and hemlock regen in skid roads.
4115 - Y.Birch, Hemlock NH	High Density Sapling	11.2	6		Harvested in 2004. Hemlock and scattered supercanopy white pine reserve trees remain.
4113 - R.Maple, Conifer	High Density Pole	8.8	Uneven Age	81-110	Steep hills. Garlic Sand 15-35% slopes. Mix of hardwood and conifer.
	Cover Type 42200 - Natural White Pine 429 - Mixed Upland Conifers 429 - Mixed Upland Forest 4319 - Mixed Upland Forest 42120 - Planted Jack Pine 42120 - Planted Jack Pine 4115 - Y.Birch, Hemlock NH 429 - Mixed Upland Conifers 4113 - R.Maple, Conifer 429 - Mixed Upland Conifers 4113 - R.Maple, Conifer 429 - Mixed Upland Conifers 4119 - Mixed Upland Conifers	Cover TypeDensity42200 - Natural White PineMedium Density Pole429 - Mixed Upland ConifersMedium Density Pole4319 - Mixed Upland ForestHigh Density Pole42120 - Planted Jack PineHigh Density Pole42120 - Planted Jack PineHigh Density Pole4115 - Y.Birch, Hemlock NHHigh Density Sapling429 - Mixed Upland ConifersHigh Density Pole4113 - R.Maple, ConiferHigh Density Pole429 - Mixed Upland ConifersMedium Density Pole4113 - R.Maple, ConiferHigh Density Pole4319 - Mixed Upland ForestMedium Density Pole4319 - Mixed Upland ForestMedium Density Pole4119 - Mixed Northern HardwoodsHigh Density High Density Log4115 - Y.Birch, Hemlock NHHigh Density Sapling4113 - R.Maple, ConiferHigh Density High Density	Cover TypeDensityAcres42200 - Natural White PineMedium Density Pole10.7429 - Mixed Upland ConifersMedium Density Pole50.5429 - Mixed Upland ConifersHigh Density Pole7.24319 - Mixed Upland ForestMedium Density11.042120 - Planted Jack PineHigh Density Pole74.142120 - Planted Jack PineHigh Density Pole242.64115 - Y.Birch, Hemlock NHHigh Density Sapling42.1429 - Mixed Upland ConifersHigh Density Pole7.54113 - R.Maple, ConiferHigh Density Pole55.9429 - Mixed Upland ConifersMedium Density Pole42.26122 - Black SpruceHigh Density Pole8.64319 - Mixed Upland ForestMedium Density Pole55.44119 - Mixed Northern HardwoodsHigh Density Log24.84115 - Y.Birch, Hemlock NHHigh Density Sapling11.24113 - R.Maple, ConiferHigh Density Sapling11.2	Level 4 Cover TypeSize DensityAcresStand Age42200 - Natural White PineMedium Density Pole10.7Uneven Age429 - Mixed Upland ConifersMedium Density Pole50.5Uneven Age429 - Mixed Upland ForestHigh Density Pole7.2Uneven Age4319 - Mixed Upland ForestMedium Density Pole11.0642120 - Planted Jack PineHigh Density Pole74.13842120 - Planted Jack PineHigh Density 	Level 4 Cover Type Size Density Acres Stand Age BA Range 42200 - Natural White Pine Medium Density Pole 10.7 Uneven Age 1-50 429 - Mixed Upland Conifers Medium Density Pole 50.5 Uneven Age 51-80 429 - Mixed Upland Conifers High Density Pole 7.2 Uneven Age 51-80 4319 - Mixed Upland Forest Medium Density 74.1 38 81-110 42120 - Planted Jack Pine High Density Pole 242.6 38 81-110 42120 - Planted Jack Pine High Density Pole 42.1 6 81-110 42120 - Planted Jack Pine High Density Pole 7.5 55 51-80 4115 - Y.Birch, Hemlock NH High Density Pole 7.5 55 51-80 429 - Mixed Upland Conifers Medium Density Pole 42.2 Uneven Age 51-80 6122 - Black Spruce High Density Pole 8.6 78 111-140 4319 - Mixed Upland Forest Medium Density Pole 55.4 Uneven Age 51-80 4113 - R.Maple, Conifer High De

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	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:	
93	42340 - Upland Spruce/Fir	High Density Pole	13.1	50	51-80	Garlic sand 0-35% slopes. Scattered large white pine trees are 3-5" DBH.	:. Many

6 – Nonforested StandsData updated before 2:00 PM



Compartment: 104

Year of Entry: 2012

Stand **Cover Type** Acres Gen Cmts: 11 - Low Intensity Urban 1.6 Grand Marais rifle range. 4 This stand surrounds the rifle range (stand 91). It is an old opening that is slowly 18.1 3204 - Mast Producing Shrub 5 filling in with shrubs and trees. (white pine, cherry, juneberry, w.spruce) 7 3204 - Mast Producing Shrub 20.0 Opening filling in with shrubs & trees. Patches of open & areas with trees. 3101 - Poverty Grass, Cladonia 4.0 12 3101 - Poverty Grass, Cladonia 2.6 13 3101 - Poverty Grass, Cladonia 77.2 **Grand Marais Airport** 14 3204 - Mast Producing Shrub 7.7 15 23 3204 - Mast Producing Shrub 2.7 5.6 28 6225 - Bog 16.7 32 3204 - Mast Producing Shrub 12.0 37 3204 - Mast Producing Shrub Opening with scattered cherry, white pine, juneberry, etc. Slowly filling in with trees. Rolling terrain. 6220 - Alder/willow 44.6 Creek with seasonal ponds. Dense alder & other tall shrubs. 38 6225 - Bog 3.8 Seasonally wet. 48 4.7 6224 - Treed Bog Seasonally wet drainage. 49 3105 - Mixed Upland Herbaceous 1.5 Small opening, filling in with trees. 52

710 - Sand, Soil

6220 - Alder/willow

5.8

1.6

54

60

Sand pit at end of airport runway.

6 - Nonforested Stands Data updated before 2:00 PM

Compartment: 104 Year of Entry: 2012

Stand	Cover Type	Acres	Gen Cmts:
68	3204 - Mast Producing Shrub	531.3	Large opening that has been filling in with cherry, juneberry, and hawthorn. Some scattered clumps of trees: white pine, aspen, red maple. Rolling terrain. Kalkaska sands, 0-15% slopes, severely burned.
70	3204 - Mast Producing Shrub	94.5	Planted to JP 2009.
77	3204 - Mast Producing Shrub	44.2	Rolling terrain. Kalkaska sand, 0-6% slopes, severely burned.
78	3204 - Mast Producing Shrub	46.3	Planted to JP 2009.
82	6225 - Bog	4.1	
84	6225 - Bog	1.5	
86	6225 - Bog	1.1	
88	6225 - Bog	1.2	
89	6220 - Alder/willow	20.2	Sucker River floodplain.

Shingleton Mgt. Unit Compartment: 104

Year of Entry: 2012



7 - PROPOSED SPECIAL CONSERVATION AREA* (SCA) DETAILS

* This is a partial list of SCAs for this compartment. Not included are those areas identified under other Department initiatives (Natural Rivers, Deer Wintering Areas, etc.). Those will be identified in separate, future map and report products.

Data updated before 2:00 PM

Stand	SCA Type	SCA Name	Acres	Comments

Shingleton Mgt. Unit Compartment: 104

Year of Entry 2012



8 – DEDICATED CONSERVATION AREA DETAILS

* This is a list of Dedicated Biodiversity Areas for this compartment along with a 1/4 mile buffer surrounding the compartment. Refer to Dedicated Conservation Area Map for areas that the below listed Conservation Areas are located.

Conservation Area	Туре	Data updated before 2:00 PM Description	ERA = Ecological Reference Area HCVA = High Conservation Value Area SCA = Special Conservation Area
SCA	Cold Water Stream	A coldwater stream has temperature and dissolved oxygen stocked trout populations and those of other coldwater fish year to year. Coldwater streams in Michigan typically provid contributions of groundwater to their stream flows. Such stredesignated as trout resources by Fisheries Order 210.	species (e.g., slimy sculpin) to persist from le these conditions due to substantial